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(71) Applicant (for all designated States except US): LUMINEX CORPORATION [US/US]; 12212 Technology Boulevard #K, Austin, TX 78727-6115 (US).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): CHANDLER, Van, S. [US/US]; 2808 McKinney Avenue #410, Dallas, TX 75204 (US). FULTON, R., Jerrold [US/US]; 305 Evergreen Trail, Cedar Hill, TX 75104 (US). CHANDLER, Mark, B. [US/US]; 4 Niles Road, Austin, TX 78700 (US).			
(74) Agent: PATTERSON, Melinda, L.; P.O. Box 4433, Houston, TX 77210 (US).			

(54) Title: **MULTIPLEXED ANALYSIS OF CLINICAL SPECIMENS APPARATUS AND METHOD**

(57) Abstract

A method for the multiplexed diagnostic and genetic analysis of enzymes, DNA fragments, antibodies, and other biomolecules comprises the steps of constructing an appropriately labeled beadset, exposing the beadset to a clinical sample, and analyzing the combined sample/beadset by flow cytometry is disclosed. Flow cytometric measurements are used to classify, in real-time, beads within an exposed beadset and textual explanations, based on the accumulated data obtained during real-time analysis, are generated for the user. The inventive technology enables the simultaneous, and automated, detection and interpretation of multiple biomolecules or DNA sequences in real-time while also reducing the cost of performing diagnostic and genetic assays.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 96/16198

A. CLASSIFICATION F SUBJECT MATTER
IPC 6 G01N15/10 G01N33/50 G01N15/14 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 G01N C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 93 02360 A (TRANSMED BIOTECH INCORPORATED) 4 February 1993 see page 4, line 18-31 see page 5, line 6-10 see page 6, line 10-25 see page 6, line 26 - page 7, line 8 see page 7, line 18 - page 8, line 2 see page 9, line 31-32 see page 19, line 36 - page 20, line 2 ---	1-49,53
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		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

28 July 1997

Date of mailing of the international search report

- 6. 08. 97

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European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl
Fax: (+ 31-70) 340-3016

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INTERNATIONAL SEARCH REPORT

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International Application No	PCT/US 96/16198
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 96/ 16198

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

- | | |
|-------------------------|--------------------------|
| 1. CLAIMS: 1-58, 85, 89 | 2. CLAIMS: 59-70, 71, 74 |
| 3. CLAIMS: 71, 74 | 4. CLAIMS: 75-84 |

FOR FURTHER INFORMATION PLEASE SEE FORM PCT/ISA/206 MAILED 01.04.97

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

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